

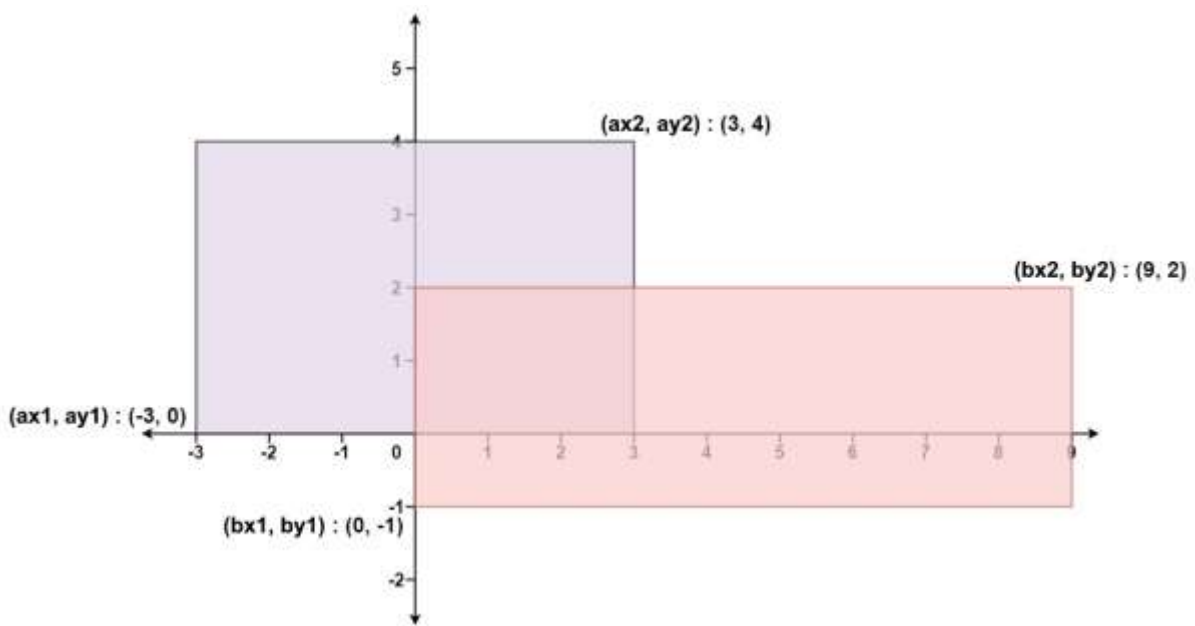
## Rectangle Area (View)

Given the coordinates of two **rectilinear** rectangles in a 2D plane, return *the total area covered by the two rectangles*.

The first rectangle is defined by its **bottom-left** corner  $(ax1, ay1)$  and its **top-right** corner  $(ax2, ay2)$ .

The second rectangle is defined by its **bottom-left** corner  $(bx1, by1)$  and its **top-right** corner  $(bx2, by2)$ .

**Example 1:**



**Input:**  $ax1 = -3, ay1 = 0, ax2 = 3, ay2 = 4, bx1 = 0, by1 = -1, bx2 = 9, by2 = 2$

**Output:** 45

**Example 2:**

**Input:**  $ax1 = -2, ay1 = -2, ax2 = 2, ay2 = 2, bx1 = -2, by1 = -2, bx2 = 2, by2 = 2$

**Output:** 16

**Constraints:**

- $-10^4 \leq ax1 \leq ax2 \leq 10^4$
- $-10^4 \leq ay1 \leq ay2 \leq 10^4$
- $-10^4 \leq bx1 \leq bx2 \leq 10^4$
- $-10^4 \leq by1 \leq by2 \leq 10^4$